

## Appalachian Math Science Partnership (AMSP) Publications and Presentations

- Arts, R. (2006). *A comparison of inservice elementary teachers conceptions of selected standards-based force and motion concepts before and after instruction*. Paper presented at the National Association for Research in Science Teaching, San Francisco, CA.
- Atwood, R., Christopher, J., Combs, R. K., & Roland, A. E. (2009). Inservice elementary teachers' understanding of magnetism concepts before and after non-traditional instruction. *Science Educator*.
- Atwood, R. K., & Christopher, J. E. (2003). *Update on the Appalachian Mathematics and Science Partnership (AMSP) project*. Paper presented at the Annual Meeting of the Mid-Atlantic Association for the Education of Teachers in Science.
- Atwood, R. K., & Christopher, J. E. (2004). *Pre-service elementary teachers' performance on standards-based light concept tasks*. Paper presented at the Association for the Education of Teachers of Science Mid-Atlantic Regional Conference.
- Atwood, R. K., & Christopher, J. E. (2004). *Standards-based light concepts for elementary science: Are teachers adequately prepared?* Paper presented at the International meeting of the National Association for Research in Science Teaching.
- Atwood, R. K., & Christopher, J. E. (2004). *Using national standards to develop a physical science curriculum for pre-service and in-service elementary teachers*. Paper presented at the Association for the Education of Teachers in Science Annual Conference.
- Atwood, R. K., & Christopher, J. E. (2005). *Entering pre-service elementary teachers' performance on standards-based light concept tasks*. Paper presented at the Association for the Education of Teachers in Science.
- Atwood, R. K., & Christopher, J. E. (2006, October 4-5). *Preservice elementary teachers' understanding of standards-based magnetism concepts*. Paper presented at the Second MSP Evaluation Summit, Minneapolis, MN.
- Atwood, R. K., & Christopher, J. E. (2007, January 3-7). *Pre-service elementary teachers' understanding of standards-based magnetism concepts*. Paper presented at the annual meeting of the Association for Science Teacher Education, Clearwater, FL.
- Atwood, R. K., Christopher, J. E., Combs, R. K., & Roland, A. E. (2008). Inservice elementary teachers' understanding of magnetism concepts before and after non-traditional instruction. *Science Educator, Out for Review*.
- Atwood, R. K., Christopher, J. E., Combs, R. K., & Roland, E. E. (2008, January 9-12). *Preservice elementary teachers' understanding of magnetism concepts before and after non-traditional instruction*. Paper presented at the annual meeting of the Association of Science Teacher Education, St. Louis, MO.
- Atwood, R. K., Christopher, J. E., & Lee, C. (2003). *A model for course development, implementation and evaluation: An example for pre-service and in-service teachers*. Paper presented at the Teacher Education Summit III.
- Atwood, R. K., Christopher, J. E., & McNall, R. (2005, September 14-16). *Comparison of inservice elementary and middle school teachers' understanding of selected light concepts*. Paper presented at the Evaluation Summit: Evidence-based Findings from MSP's, Minneapolis, MN.

## Appalachian Math Science Partnership (AMSP) Publications and Presentations

- Atwood, R. K., Christopher, J. E., & McNall, R. (2006). *Middle school teachers understanding of standards-based light concepts before and after instruction*. Paper presented at the National Association for Research in Science Teaching, San Francisco, CA.
- Atwood, R. K., Christopher, J. E., & McNall, R. (2007, April 15-18). *Are inservice elementary teachers prepared to teach fundamental concepts of magnets and the behavior of magnets?* Paper presented at the annual meeting of the National Association for Research in Science Teaching, New Orleans, LA.
- Beswick, G. (2009, April 22-25). *Bridges to understanding linear and non-linear functions*. Paper presented at the National Council of Teachers of Mathematics, Washington, DC.
- Bradley, K., & Cunningham, J. Technical and human infrastructure issues in the transition from paper and pencil to web-based formats for high-stakes testing in Kentucky schools.
- Bradshaw, T. J., Carmichael, S. P., II, Ferrier, A., & Osborn, J. L. (2007). *Teaching assistant training mediates success of inquiry based education*. Paper presented at the Experimental Biology '07, Washington, DC.
- Bradshaw, T. J., & Osborn, J. L. (2006, June 11). *Efficacy of Casey County Partnership Enhancement Project: Perceptions of Casey County, KY faculty*. Paper presented at the Appalachian Math Science Partnership (AMSP) Research Conference, Lexington, KY.
- Brock, M. (2004). *Kentucky Science Teachers Association 32nd Conference and Professional Development*. Hyatt Regency, Lexington KY.
- Brock, M. (2004). Inquiry chemistry for teachers in Appalachia: The AMSP model, *18th Biennial Conference on Chemical Education*. Iowa State University, Ames IA.
- Brock, M. (2008, July 28). *Institutional collaboration model for science and math education*. Paper presented at the Biennial Conference on Chemical Education, Bloomington, IN.
- Brock, M. (2008, July 27). *Partnership Enhancement Programs: Alliances with school districts*. Paper presented at the Biennial Conference on Chemical Education, Bloomington, IN.
- Brock, M., & Johnson, D. (2008, September 12-13). *Redox in interdisciplinary instruction: Accommodating Kentucky standards*. Paper presented at the Association for Science Teacher Education, Mid Atlantic (MAASTE) Regional Conference, Lake Lure, NC.
- Brock, M., Staddon, B., Dieckmann, M., & Cook, J. (2003). Inquiry science instruction, *Lilly Conference*. Miami University. Oxford OH.
- Cady, J. (2007, February 24-27). *Online courses for middle school mathematics teachers*. Paper presented at the Association of Colleges of Teacher Education annual meeting, New York, NY.
- Cady, J., Hopkins, T., Byrd, J., Taylor, M., Miriti, L., Schack, E., et al. (2007, March 21-24). *Math for teachers lesson study (preliminary title)*. Paper presented at the National Council of Teachers of Mathematics (NCTM) conference, Atlanta, GA.
- Cady, J., Taylor, P. M., & Hodges, T. E. (2007, March 21-24). *Using online courses to link research to practice*. Paper presented at the National Council of Teachers of Mathematics (NCTM) conference, Atlanta, GA.

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- Cady, J. A. (2008, June). *Online professional development to impact teacher learning*. Paper presented at the U.S. - Sino Workshop on Mathematics and Science Education: Common Priorities that Promote Collaborative Research, Murfreesboro, TN.
- Cady, J. A. (in press). Delivering online professional development in mathematics to rural educators. *Journal of Technology and Teacher Education*.
- Cady, J. A., & Hodges, T. E. (2008, April). *From certainty to uncertainty: Teachers evolving beliefs*. Paper presented at the National Council of Teachers of Mathematics annual meeting research pre-session, Salt Lake City, UT.
- Cady, J. A., Hodges, T. E., & Strunk, K. (2008, January). *Reaching teachers through synchronous online courses*. Paper presented at the Association of Mathematics Teacher Educators annual meeting, Tulsa, OK.
- Cady, J. A., Rearden, K. T., & Hodges, T. E. (2008, March). *Using online professional development to enhance teachers' content and pedagogical content knowledge and to create communities of learners*. Paper presented at the American Educational Research Association annual meeting, New York, NY.
- Casey, R. (2009, April 22-25). *From blocks to equations: Algebraic reasoning for all learners*. Paper presented at the National Council of Teachers of Mathematics, Washington, DC.
- Coen, P., Miriti, L., Ratliff, M., & Schack, E. (2007, January 25-27). *Lesson study in higher education: A Japanese-style lesson study implemented in a college-level mathematics course – what faculty have learned (so far)*. Paper presented at the The Association of Mathematics Teacher Educators (AMTE), Irvine, CA.
- Craig, W. (2006). *The effects of professional development programs on educational outcomes in mathematics and sciences*. Lexington, KY: University of Kentucky, Martin School of Public Policy and Administration.
- Cunningham, J. Levels of agreement among teachers on assignment of specific standards to mathematics items.
- Cunningham, J. Vectorized standards – analysis of the feasibility and effectiveness of adding cognitive level dimensions to math assessment standards in web-based systems.
- Cyrus, V., & Saxon, J. (2005). *AMSP summer institutes and their impact*. Paper presented at the NCTM 2005 Annual Meeting and Exposition.
- Duncan, B. (2005). Examining AMSP partnerships: Increasing capacity for distributed leadership. Unpublished Midpoint Report. University of Kentucky.
- Duncan, B. (2008). Examining AMSP partnerships: Increasing capacity for distributed leadership. Unpublished Final Report - AMSP Research Project. University of Kentucky.
- Eakin, P., Eberhart, C., & Kubota, K. (2004, June 7). Communicating mathematics: A WHS manual for authors (draft) Retrieved April 24, 2006, from [http://www.ms.uky.edu/~carl/communicating\\_math/author2/WHS\\_Manual.pdf](http://www.ms.uky.edu/~carl/communicating_math/author2/WHS_Manual.pdf)
- Eakin, P., & Roher, L. A. H. (2007, October 29). *A model for embedded professional development for secondary mathematics teachers*. Paper presented at the 2007 Quality Teacher Summit, Frankfort, KY.
- Earley, P., Maloney, P., Mangurian, L., & Millman, R. (2006, November 2-4). *Making good on our word: STEM faculty and K-16 partnerships*. Paper presented at the

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- Association for the Study of Higher Education (ASHE) Annual Conference, Anaheim, CA.
- Eberhart, C. (2004, June 7). Latextools manual Draft 2. Retrieved April 24, 2006, from [http://www.msc.uky.edu/carl/communicating\\_math/latextools/Latextools.pdf](http://www.msc.uky.edu/carl/communicating_math/latextools/Latextools.pdf)
- Henderson, S. (2004). *Leadership by Design: Patterns of excellence*. Paper presented at the National Science Teachers Association National Conference.
- Henderson, S. (2004). *The school science program review: A strategy for analyzing school science programs*. Paper presented at the National Science Teachers Association National Conference.
- Henderson, S. (2004). *The school science program review: The first service in NSTA's new school services initiative*. Paper presented at the National Science Teachers Association National Conference.
- Henderson, S. (2005, April 3-5). *The role of the principal in the retention of mathematics and science teachers*. Paper presented at the Children and Rural Education Conference (CARE), Monroe, LA.
- Jensen, J. M. (2006). *Appalachian aspirations* (Presentation to AMSP Research Committee). Lexington, KY: University of Kentucky.
- Jensen, J. M. (2007). *The road to college: Appalachian students articulations of space and place*. Paper presented at the American Anthropological Association Annual Meetings.
- Johnson, D., & Brock, M. (2006, October 7). *High school biology and chemistry teachers' understanding of redox concepts before instruction*. Paper presented at the Mid-Atlantic Region, Association for Science Teacher Education (MA-ASTE) Conference, Marion, VA.
- Johnson, D., & Brock, M. (2009, June 24-26). *Using learning progressions to develop and implement an inquiry model for force and motion at K-5 level*. Paper presented at the National Association for Research in Science Teaching, Iowa City, IA.
- Krall, R. M., Lott, K. H., & Wymer, C. L. (in press). Inservice elementary and middle school teachers' conceptions of photosynthesis and respiration. *Journal of Science Teacher Education*.
- Kubota, K. (2003, Fall). Algebra lecture notes Retrieved April 24, 2006, from <http://www.msc.uky.edu/ken/ma110/text/index.htm>
- Kukla-Acevedo, S. (2009). Do teacher characteristics matter? New results on the effects of teacher preparation on student achievement. *Economics of Education Review*, 28(1), 49-57.
- Kukla-Acevedo, S., & Toma, E. (2009). The value of a college education: Estimating the effect of teacher preparation on student achievement, *IFIR working paper series*. Lexington, KY: Institute for Federalism and Intergovernmental Relations.
- Lee, C. (2004). *Appalachian Collaborative Center for Learning, Assessment, and Instruction in Mathematics Teacher Development Conference and Research Pre-Session*. Huntington, WV.
- Lee, C. (2008, November 7). *Math content and connections teachers need: Conquering the disconnecting forces*. Paper presented at the Conference of the Appalachian Association of Mathematics Teacher Educators, Corbin, KY.
- Lockhart, T. (2007, November 20). *Instructional dialogue middle school/high school*

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- algebra I project*. Paper presented at the Pike County Board of Education Meeting, Pikeville, KY.
- Lott, K. H. (2006). *Inservice elementary teachers' conceptions of materials, states of matter and the properties of objects*. Paper presented at the Association for Science Teacher Education.
- Lott, K. H. (2008, January 9-12). *Science Excel: an effective teacher recruitment program for rural schools?* Paper presented at the annual meeting of the Association of Science Teacher Education, St. Louis, MO.
- Ma, X. The challenge of separating project effects on student achievement: The case of AMSP and ARSI.
- Ma, X. (2005). AMSP course profile analysis: Impact analysis of pre-service courses fall 2005: AMSP technical report 2005-4. Unpublished Report. University of Kentucky.
- Ma, X. (2007, April 9-13). *The challenge of separating project effects on student achievement: The case of AMSP and ARSI*. Paper presented at the American Educational Research Association, Chicago, IL.
- Ma, X., & Millman, R. (2005, May). *Integrating the assessment principle into mathematics content courses for pre-service elementary teachers*. Paper presented at the International Congress of Mathematics Instruction 15 (ICMI-15), San Paolo, Brazil.
- McNall, R., & Lott, K. (2006). *Inservice elementary and middle school teachers conceptions of selected life science concepts*. Paper presented at the National Association for Research in Science Teaching, San Francisco, CA.
- Millman, R. (2004). AMSP and rural math ed partnership. San Diego State University, San Diego, CA.
- Millman, R. (2004). *AMSP: A partnership to create opportunities through math and science, K-20*. Paper presented at the Colloquium.
- Millman, R. (2004). *A brown bag on the math strand of AMSP*. Paper presented at the Center for Research in Mathematics and Science Education (CREMSE).
- Millman, R. (2005, May). *Mathematical mathematics education with examples from the AMSP*. Paper presented at the Department of Mathematics and Statistics, Wright State University, Dayton, Ohio.
- Millman, R. (2006, November 4). *Making good on our word: STEM faculty and K-16 partnerships*. Paper presented at the Study of Higher Education Annual Meeting, Anaheim, CA.
- Millman, R., Eakin, P., & Yopp, J. (2005). *Partnership enhancement projects in the area of mathematics*. Paper presented at the NSF/ED Math Science Partnership State Coordinators' Meeting.
- Millman, R., & Ma, X. (2005, May). *Integrating the assessment principle into mathematics content courses for preservice elementary teachers*. Paper presented at the International Commission on Mathematics Instruction, 15th Study, Aguas de Lindoia, Brazil.
- Millman, R., & Ma, X. (2005). Using self-assessment and peer-assessment. *National Council of Teachers of Mathematics News Bulletin*, 42, 9.
- Millman, R., & Ma, X. (2006). *Design of a mathematics content course to integrate the assessment principle: Recent results*. Paper presented at the 4th Annual Hawaii

## Appalachian Math Science Partnership (AMSP) Publications and Presentations

- International Ed Conference, Honolulu, HI.
- Millman, R., Ma, X., & Wells, M. (2007, June). *Constructing a conceptual mathematics content course with integrated assessment for future teachers*. Paper presented at the Athens Institute for Education and Research Math Conference, Athens, Greece.
- Millman, R., Svec, K., & Williams, D. (2005). *Use of video clips of children in a content math course for future elementary teachers*. Paper presented at the Appalachian Association of Math Teacher Educators.
- Millman, R., & Wells, M. (2007, February 22-25). *Constructing a conceptual mathematics content sequence with integrated assessment*. Paper presented at the Tenth Special Interest Group of the Mathematical Association of America Conference on Research in Undergraduate Mathematics Education (CRUME), San Diego, CA.
- Molzon, R. (2005). A brief introduction to calculus Retrieved April 24, 2006, from <http://www.ms.uky.edu/~ma123/ma123.pdf>
- Moss, M. (2006). *Pre-service elementary teachers and their specialized understanding of mathematics*. Paper presented at the 3rd International Conference on the Teaching of Mathematics at the Undergraduate Level.
- Moss, M. (2007, November 1-4). *Math knowledge for teaching: What is it and how do teachers gain it?* Paper presented at the American Mathematical Association of Two-Year Colleges, Minneapolis, MN.
- Moss, M. V. (2006). *Specialized understanding of mathematics: A study of prospective elementary teachers*. Unpublished Ph.D. Dissertation, The University of Tennessee, Knoxville, TN.
- Murray, S., Ma, X., & Mazur, J. (2009). Effects of peer coaching on teachers' collaborative interactions and students' mathematics achievement. *The Journal of Educational Research*, 102(3), 203-212.
- Osborn, J. L. (2006, October 27). *Setting the bar higher*. Paper presented at the Michigan Association of Public Schools Academies, Detroit, MI.
- Peach, H. G., Jr., & Poulette, J. (2008). *Changes in majors of incoming students to the University of Kentucky from Appalachian Math Science Partnership districts, 1999-2006*. Lexington, KY: University of Kentucky.
- Peach, H. G., Jr., Poulette, J., Shoemaker, B. Q., Long, D. J., Evans, B., & Henderson, S. (2007, June 12). *Appalachian Mathematics and Science Partnership (AMSP) needs analysis surveys: Methodology and results*. Paper presented at the AMSP Research Conference, Lexington, KY.
- Pomeroy, D., Beardsley, L., Shoemaker, B. Q., & Zhang, X. (2009, January 25-26). *Engaging higher education faculty in k-16 STEM education reform*. Paper presented at the 2009 Math and Science Partnership Learning Network Conference, Washington, DC.
- Riddell, S. (2009, April). Lewis, Fleming counties force the issue in science. *Kentucky Teacher*, 7.
- Riddell, S. (2009). Principals have DAT extra knowledge. *Kentucky Teacher*, 7.
- Roher, L. A. H. (2007, February 25). *Access to Algebra: Comparative study of high school math students using distance learning at readiness with college Algebra classroom students*. Paper presented at the Tenth Special Interest Group of the

## Appalachian Math Science Partnership (AMSP) Publications and Presentations

- Mathematical Association of America Conference on Research in Undergraduate Mathematics Education (CRUME), San Diego, CA.
- Roher, L. A. H. (2007, October 15). *Embedded professional development for math teachers: College credit in college algebra for secondary school students*. Paper presented at the inaugural meeting of Mathematics and Science Symposium, Knoxville, TN.
- Roher, L. A. H. (2007, June). *Student access: Comparative study of high school math students using distance learning at readiness with college algebra classroom students*. Paper presented at the Tenth RUME Conference on Research in Undergraduate Mathematics Education, Raleigh, NC.
- Roher, L. A. H. (2008, March). *Access to algebra and professional online learning communities: Professional development for mathematics teachers in remote areas*. Paper presented at the Instructional Systems Design Colloquium, Department of Curriculum and Instruction, University of Kentucky, Lexington, KY.
- Roher, L. A. H., Stinson, S., & O'Bryan, A. (2008, March). *Creating a professional learning community for secondary mathematics teachers through embedded professional development using online meetings*. Paper presented at the Society for Information Technology and Teacher Education, Las Vegas, NV.
- Roher, L. A. H., Zehnder, S., & Kinser, G. (2007, October 19 & 20). *Professional learning communities communicating online in real time*. Paper presented at the annual meeting of the Kentucky Council of Teachers of Mathematics, Georgetown, KY.
- Roland, A. E. (2007, January 3-7). *Initial variation by course level of selected standards-based chemistry concepts of high school students*. Paper presented at the annual meeting of the Association for Science Teacher Education, Clearwater, FL.
- Royster, W., Yopp, J., Peach, H. G., Jr., & Shoemaker, B. Q. (2008, February 5). *The Appalachian Math & Science Partnership: Data and research opportunities*. Paper presented at the Institute for Educational Research Colloquium, Lexington, KY.
- Royster, W., Yopp, J., Peach, H. G., Jr., & Shoemaker, B. Q. (2009, January 26). *The successful partnership enhancement program (PEP) model in Appalachian schools*. Paper presented at the 2009 MSP Learning Network Conference, Washington, DC.
- Sathaye, A. (2005, April 18). New sections on derivatives and applications Retrieved April 24, 2006, from [http://www.msc.uky.edu/sohum/ma109\\_sp05/derivatives.pdf](http://www.msc.uky.edu/sohum/ma109_sp05/derivatives.pdf)
- St. John, M., Allen, K., Carroll, B., Mitchell, H., Horsch, E., Lopez, L., et al. (2008). *The Appalachian Math Science Partnership: A multi-state umbrella partnership promoting local mathematics and science reform* Inverness, CA: Inverness Research, Inc.
- St. John, M., Allen, K., Carroll, B., Mitchell, H., Horsch, E., Lopez, L., et al. (2008). *The Appalachian Math Science Partnership: A multi-state umbrella partnership promoting local mathematics and science reform - close-up papers*. Inverness, CA: Inverness Research, Inc.
- Stamm, V., & Allen, R. (2009, April 22-25). *Partnering practioners for developing algebraic thinking*. Paper presented at the National Council of Supervisors of

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- Mathematics, Washington, DC.
- Taylor, P. M., Cady, J. A., & Hodges, T. E. (2008, January). *Measuring collegiality in "online" professional development of middle grades mathematics teachers: Process, tools, and results from a study*. Paper presented at the Association of Mathematics Teacher Educators annual meeting, Tulsa, OK.
- Toma, E. F., & Foster, J. (2008, January 28). *Student achievement and the Appalachian Math and Science Partnership*. Paper presented at the Math Science Partnership Conference, Washington, DC.
- Wymer, C. (2008, September 12-13). *An inquiry biology course for pre-service elementary teachers*. Paper presented at the Association for Science Teacher Education, Mid Atlantic (MAASTE) Regional Conference, Lake Lure, NC.
- Yopp, J. (2008, July 15-17). *The new STEM formula: STEM + jobs = success*. Paper presented at the Workforce Innovations 2008 conference, New Orleans, LA.
- Yopp, J., Peach, H. G., Jr., & Royster, W. (2007, October 29-30). *Appalachian Mathematics and Science Partnership: Surveys and analyses of k-12 math and science educational needs*. Paper presented at the Teacher Quality Summit, Louisville, KY.
- Yopp, J., & Royster, W. (2007, February 23-26). *Making good on our word: STEM faculty and K-16 partnerships. Strand three: Vision to action*. Paper presented at the American Association of Colleges of Teacher Education (AACTE), New York, NY.